



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,617	06/20/2001	Siegfried Bocionek	P01,0208	5359
26574	7590	04/27/2004	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			MILLER, RYAN J	
			ART UNIT	PAPER NUMBER
			2621	
			DATE MAILED: 04/27/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/885,617

Applicant(s)

BOCIONEK, SIEGFRIED

Examiner

Ryan J. Miller

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The examiner requests a copy of the book Bildgebende Systeme für die medizinische Diagnostik, edited by H. Morneburg as cited on page 1, lines 16-17 of the specification. This reference is pertinent to the examination of this application. Full consideration of this prior art is essential.

Drawings

3. Figure 1 is objected to as depicting a block diagram without "readily identifiable" descriptors of each block, as required by 37 CFR 1.84(n). Rule 84(n) requires "labeled representations" of graphical symbols, such as blocks; and any that are "not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable." In the case of Fig. 1, the blocks and symbols are not readily identifiable per se. Each block and symbol should have a corresponding label that identifies its function or purpose. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. The following quotations of 37 CFR § 1.75(a) and (d)(1) are the basis of objection:

(a) The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

Art Unit: 2621

(d)(1) The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. (See § 1.58(a)).

5. Claims 1-6 are objected to under 37 CFR § 1.75(a) as failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention or discovery.

Regarding claim 1, the claim calls for “a post-processing” device at line 6. However, it is unclear from the claim how this element is incorporated into the overall system. Is this post processing device a part of the processing apparatus? Or, is this post-processing device equivalent to workstations 11 shown in Fig. 1? For examination purposes, the examiner has equated the post-processing device to the workstations 11 shown in Fig. 1; however, clarification of this feature is required.

Further regarding claim 1, the claim recites the limitation “said processing device” at line 15. There is insufficient antecedent basis for this limitation in the claim. The examiner suggests changing this limitation to read “said processing apparatus”.

Regarding claims 4 and 5, each of these claims call for mixing a still image into a window on the viewing monitor. This language is vague and difficult to understand. Mixing an image implies that one image is combined in some manner with another image. However, these claims only provide for one still image. Clarification of this issue is required.

Claim 4 also calls for “a camera”. However, a camera is already recited in claim 1. Since claim 4 ultimately depends from claim 1, this limitation should be amended to distinguish the camera of claim 4 from the camera of claim 1. The examiner suggests amending the claims to read “a first camera” and “a second camera”.

Claims 2, 3, and 6 are objected to as depending from an objected to claim.

6. Claims 1-6 is objected to under 37 CFR § 1.75(d)(1) as failing to find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the disclosure.

Regarding claim 1, the claim calls for a "post-processing device" at line 6. However, the specification never explicitly describes "a post-processing device". For examination purposes, the examiner has equated the claimed post-processing device to the workstations 11 shown in Fig. 1. Clarification is required.

Regarding claim 5, the claim calls for two post-processing devices. While the specification shows in Fig. 1 that two workstations 11 can be connected to the communication network 9, the specification never describes how these elements interact for video conferencing as required by the claim. Clarification based on the specification is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Herzog (DE 198 02 572 A1) and Kraft (U.S. Patent No. 6,370,420 B1), and further in combination with Alexandrescu (DE 197 43 500 A1). (Note: The corresponding U.S. cases of the German references, U.S. Patent No. 6,241,668 B1 and U.S. Patent No. 6,272,368

B1, respectively, have been provided and used as a translation of the German references; however, the rejection is based on the German references.)

As applied to claim 1, Herzog discloses a medical system architecture comprising: at least one modality for acquiring an examination image of a subject (see Fig. 1: Reference numerals 1, 2, 3, and 4 referring to a CT unit, an MR unit, a DSA unit, and an X-ray unit, respectively.); a processing apparatus connected to said modality for processing said examination image (see Fig. 1 and column 2, lines 26-29 of U.S. Patent No. 6,241,668 B1: The reference describes workstations 5 to 8 that are connected to each modality and are used for processing the examination images.); a storage system for storing said examination image (see Fig. 1: Reference numeral 10 referring to an image archiving system.); a post-processing device for post-processing said examination image (see Fig. 1: Reference numeral 11 referring to workstations (i.e. post-processing devices).); a communication network operating according to a DICOM standard for exchanging data representing at least said examination image among said processing apparatus, said storage apparatus and said post-processing device (see Fig. 1 and column 2, lines 52-57 of U.S. Patent No. 6,241,668 B1: The reference describes an image communication network 9 that operates according to the DICOM standard. As can be seen in Fig. 1, workstations 5-8 (i.e. processing apparatus), workstations 11 (i.e. post-processing device), and image archiving system 10 (i.e. storage apparatus).); and said processing apparatus having a viewing monitor on which said examination image is displayed (see Fig. 1: As can be seen in the figure, each workstation 5-8 (i.e. processing apparatus) has a viewing monitor.).

Art Unit: 2621

As applied to claim 3, Herzog discloses that the post-processing device has a viewing monitor (see Fig. 1: As can be seen in the figure, each workstation 11 (i.e. post-processing device) has a viewing monitor.).

As applied to claim 4, Herzog discloses a camera at said post-processing device having a field of view for producing at least one still image of an environment of said post-processing device (see Fig. 1: Reference numeral 14 referring to a digital photographic camera connected to workstation 11 (i.e. post-processing device)).

As applied to claim 5, which calls for two post-processing devices each having a camera, Herzog discloses such a feature (see Fig. 1: The reference calls for the medical system architecture to have two post-processing devices see workstations 11 each with a viewing monitor and a camera (reference numerals 14 and 15, respectively)).

Claim 1 also calls for:

A) a camera having a field of view encompassing the modality for producing at least one still image of the modality, the camera being connected to the processing device;
and

claims 1 and 3-5 call for:

B) the processing apparatus to mix the at least one still image of the modality (or environment) into the examination image in a separate window on the viewing monitor.

Herzog does not teach features A) and B).

Regarding A), Alexandrescu, in the same field of endeavor of image processing, and the same problem solving area of medical imaging system architecture, discloses a camera having a field of view encompassing the modality for producing at least one still image of the modality

(see Fig. 1: As can be seen in the figure, the reference describes a system that has a camera 13 with a field of view that encompasses the imaging modality, in this case an X-ray device.), the camera being connected to the processing apparatus (see Fig. 1: As can be seen from the figure, the camera is connected to an evaluation unit (i.e. processing apparatus).

As applied to claim 2, Alexandrescu discloses that camera produces a sequence of still images of the imaging modality (see column 3, lines 28-29 of U.S. Patent No. 6,272,368 B1: The reference describes that the camera 13 can be a video camera. A video camera produces a sequence of still images.).

As applied to claim 6, Alexandrescu discloses that the camera is a digital camera (see column 3, lines 28-29 of U.S. Patent No. 6,272,368 B1: The reference describes that the camera 13 can be a CCD camera (i.e. a digital camera).).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Herzog by adding the use of a camera that has a field of view encompassing the modality for producing an image of the modality as taught in Alexandrescu because the use of such a modality because the use of such a camera allows for the monitoring and prevention of "collisions of components of the medical devices with one another as well as collisions with unknown objects freely movable in space, for example with persons" (see Alexandrescu (U.S. Patent No. 6,272,368 B1): column 1, lines 56-58).

Regarding difference B), Kraft, in the same field of endeavor of image processing, and the same problem solving area of medical imaging system architecture, discloses a system with a processing apparatus that mixes the at least one still image of a patient into the examination image in a separate window on the viewing monitor (see Fig. 4: As can be seen in the figure, the

Art Unit: 2621

examination image 54 is mixed with an image of the patient 44 in a separate window on the viewing monitor 72.).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Herzog and Alexandrescu by adding the ability to mix an image of the medical imaging environment with an examination image in a separate window on a viewing monitor as taught in Kraft because the use of such processing steps allows the medical professional to "be able to access all the relevant information without viewing numerous displays or switching between input channels on a display" (see Kraft: column 3, lines 19-21.).

Conclusion


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan J. Miller whose telephone number is (703) 306-4142. The examiner can normally be reached on M-F 8:00-4:30.

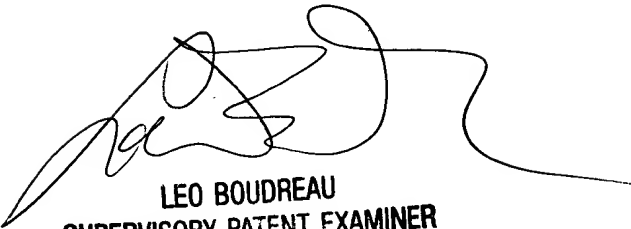
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H. Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2621

Ryan J. Miller
Examiner
Art Unit 2621


Ryan J. Miller


LEO BOUDREAU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600